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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,076	03/31/2004	Masashi Hashimoto	TI-12592A.23	8892
23494	7590	07/22/2004	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265			LANE, JOHN A	
			ART UNIT	PAPER NUMBER
			2188	

DATE MAILED: 07/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/816,076	<b>Applicant(s)</b> HASHIMOTO ET AL.	
	<b>Examiner</b> Jack A Lane	<b>Art Unit</b> 2188	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

1. This Office action is responsive to the preliminary amendment filed 03/31/04.

Claims 1-19 are presented for examination.

2. The examiner requests, in response to this Office action, any reference(s) known to qualify as prior art under 35 U.S.C. sections 102 or 103 with respect to the instant claims. That is, any prior art (including any products for sale) similar to the instant claimed invention that could reasonably be used in a 102 or 103 rejection. This request does not require applicant to perform a search. This request is not intended to interfere with or go beyond that required under 37 C.F.R. 1.56 or 1.105. This request may be fulfilled by asking the attorney(s) of record handling prosecution and the inventor(s)/assignee for references qualifying as prior art. A simple statement that the query has been made and no prior art found is sufficient to fulfill the request. Otherwise, the fee and certification requirements of 37 CFR section 1.97 are waived for those documents submitted in reply to this request. This waiver extends only to those documents within the scope of this request under 37 CFR, section 1.105 that are included in the application's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this request and any information disclosures beyond the scope of this request under 37 CFR section 1.105 are subject to the fee and certification requirements of 37 CFR section 1.97. In the

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event prior art documentation is submitted a discussion of relevant passages, figs. etc. is requested. **A response to this inquiry is greatly appreciated.**

The examiner also requests, in response to this Office action, support be shown for language added to the claims on amendment. That is, indicate support for newly added claim language by specifically pointing to page(s) and line no(s). in the specification and/or drawing figure(s). This will assist the examiner in prosecuting the application.

3. The non-statutory double patenting rejection, whether of the obviousness-type or non-obviousness-type, is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent. *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); and *In re Goodman*, 29 USPQ2d 2010 (Fed. Cir. 1993).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(b) and (c) may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78(d).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-19 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. patent 6,732,224, claims 1-5 of U.S. patent 6,732,226, claims 1-9 of U.S. patent 5,400,288,

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claims 1-8 of U.S. patent 5,093,807, claims 1-33 of U.S. patent 5,636,176, claims 1-4 of U.S. patent 6,418,078 and claims 1-9 of U.S. patent 6,188,635, each taken separately.

Although the conflicting claims are not identical, they are not patentably distinct from each other because application claims 1-19 and the patented claims each recite "a random access memory", "a data buffer" and "an address sequencer". Applicant should note that deletion or omission of elements found in the patented claims with consequent loss of their function(s) would have been obvious to one having ordinary skill in the art.

Applicant should also note several of the prior art documents listed in the patents teach many, if-not-all, of the remaining features found in the independent and dependent claims. The claim features, while part of the invention, appear to be well known and their relevance not essential to the main invention (i.e. address sequencer and address buffer combination). Thus, a detailed discussion of the well known claim features is not warranted at this time.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103 (a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103(a).

6. Claims 1-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Frankel et al. (4,463,443) in view of Joshi et al. (4,949,301)

Frankel teaches the claimed "random access memory array" as RAM 16. The claimed "data buffer" corresponds to one of registers 10, 18, 20 or 14. The claimed "address sequencer" corresponds to circuitry including read and write sequence generator and control logic 22 and read and write address counters 40,42. However, Frankel does not teach the claimed "initial random access address."

Joshi teaches a pointer storage register that may be accessed through an initialization bus such that the contents of the register may be initialized to any desired pointer address. Starting addresses are also stored in registers which also have input multiplexers one input of which is coupled to the initialization bus. Thus, the starting addresses may be randomly set to any desired address. Joshi teaches a random access capability such that the contents of any address in the memory can be read or changed (col. 2, lines 18-25). Because an address register can be initialized to any desired starting address as discussed in Joshi providing a random access capability to RAM memory, it would have been obvious to use such a scheme in the device of Frankel to provide a desired starting address to the RAM buffer system. Therefore, the claimed invention would have been obvious to one of ordinary skill in the art at the time of the

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invention.

Official notice is taken of the prior art drawn to asynchronous DRAM devices teaching any claim feature not specifically discussed above. That is, any prior art (including that of record) teaching the more well known claim features commonly found in the dependent claims. The claim features, while part of the invention, appear to be well known and their relevance not essential to the main invention found in the independent claim(s). Thus, a detailed discussion of the well known claim features is not warranted at this time. The prior art features corresponding to the present claim features improve the speed and reliability of DRAM devices. It would have been obvious to one having ordinary skill in the art at the time of the invention to combine the primary reference with the officially taken prior art to improve the DRAM devices of Frankel and Joshi.

**Any response to this action should be mailed to:**

Under Secretary of Commerce for Intellectual Property and Director  
of the United States Patent and Trademark Office  
PO Box 1450  
Alexandria, VA 22313-1450

**or faxed to:**

(703) 872-9306, (for Official communications intended for entry)

**Or:**

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Hand-delivered responses should be brought to Crystal Park II, 2121  
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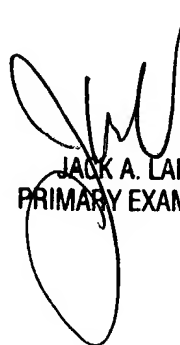


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack A. Lane whose telephone number is 703 305-3818. The examiner can normally be reached on Mon-Fri from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 703 306-2903.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-3900.



JACK A. LANE  
PRIMARY EXAMINER